

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Currently Amended) A non-contact position sensor comprising:
 - a slider having a magnet having ~~it's~~ a front face along a longitudinal direction of the magnet that has one polarity and a back faces along the longitudinal direction of the magnet that has an opposite polarity whose polarities are different from each other;
 - a stator consisting of a magnetic body having a pair of opposed walls forming an area in which the slider enters while keeping a predetermined clearance, the opposed walls corresponding to the front and back faces of the magnet;
 - a magnetically-sensitive sensor provided in the stator to detect a position of the slider corresponding to a percentage of the magnet entering the area; and
 - a magnetic flux leakproof member for preventing magnetic flux, which is generated in a part of the magnet that does not enter the area, from leaking out to the stator.
3. (Previously Presented) The non-contact position sensor of claim 2, wherein
 - the magnetic flux leakproof member is formed by a magnetic body allowing a passage of the magnetic flux generated in a part of the magnet that does not enter the area.
4. (Currently Amended) A non-contact position sensor comprising:
 - a slider having a magnet having ~~it's~~ a front face along a longitudinal direction of the magnet that has one polarity and a back faces along the longitudinal direction of the magnet that has an opposite polarity whose polarities are different from each other;
 - a main stator consisting of a magnetic body having a pair of opposed walls forming an area in which the slider enters while keeping a predetermined clearance, the opposed walls corresponding to the front and back faces of the magnet, and a first gap continuing into the opposed walls;

a magnetically-sensitive sensor arranged in the first gap to detect a position of the slider corresponding to a percentage of the magnet entering the area; and

an assist stator for preventing magnetic flux, which is generated in a part of the magnet that does not enter the area, from leaking out to the main stator.

5. (Original) The non-contact position sensor of claim 4, wherein
the assist stator has a pair of opposed walls corresponding to front and back faces of the part of the magnet that does not enter the area.

6. (Previously Presented) The non-contact position sensor of claim 4, wherein
the assist stator has a pair of opposed walls corresponding to front and back faces of the part of the magnet that does not enter the area and a second gap continuing into the opposed walls.

7. (Currently Amended) A non-contact position sensor comprising:
a slider having a magnet having ~~it's~~ a front face along a longitudinal direction of the magnet that has one polarity and a back faces along the longitudinal direction of the magnet that has an opposite polarity whose polarities are different from each other;

a main stator consisting of a magnetic body having a pair of opposed walls forming a first area in which the slider enters while keeping a predetermined clearance, the opposed walls corresponding to the front and back faces of the magnet, and a first gap continuing into the opposed walls;

an assist stator arranged at a second gap intersecting with a moving direction of the slider from the main stator, the assist stator consisting of a magnetic body having a pair of opposed walls forming a second area allowing the slider to move while keeping a predetermined clearance; and

a magnetically-sensitive sensor arranged in the first gap of the main stator to detect a position of the slider corresponding to a percentage of the magnet entering the first area of the main stator.

8. (Original) The non-contact position sensor of claim 7, wherein the opposed walls of the assist stator are connected with each other integrally.
9. (Previously Presented) The non-contact position sensor of claim 7, wherein the assist stator is partitioned through a third gap continuing into the opposed walls.

10.-16. (Canceled)

17. (Currently Amended) A non-contact position sensor comprising:

a slider consisting of a pair of magnets whose side edges along a moving direction of the slider are joined to each other and each of which has a front face along a longitudinal direction of the magnet that has one polarity and a back faces along the longitudinal direction of the magnet that has an opposite polarity ~~whose polarities are different from each other~~ and an armature provided on one side face of the pair of magnets;

a main stator consisting of a magnetic body arranged in a position opposing the other side face of the pair of magnets;

a magnetically-sensitive sensor provided in the main stator to detect a position of the slider corresponding to a percentage of the magnets entering an area where the slider opposes the main stator; and

an assist stator consisting of a magnetic body for preventing magnetic flux, which is generated in parts of the magnets that do not enter the area, from leaking out to the main stator, wherein the main stator and the assist stator are arranged at a same side of the slider.

18. (Original) The non-contact position sensor of claim 17, wherein magnetic flux generated in parts of the magnets that do not enter the main stator forms a loop in the assist stator.

19. (New) The non-contact position sensor of claim 2, wherein the magnetically-sensitive sensor is provided in a direction perpendicular to a moving direction of the slider.

20. (New) The non-contact position sensor of claim 4, wherein
the magnetically-sensitive sensor is provided in a direction perpendicular to a moving
direction of the slider.

21. (New) The non-contact position sensor of claim 7, wherein
the magnetically-sensitive sensor is provided in a direction perpendicular to a moving
direction of the slider.